

Rat IL17F / IL-17F Protein (His Tag)

Catalog Number: 80462-R08B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL17F

Protein Construction:

A DNA sequence encoding the rat Il17f (NP_001015011.1) (Met1-Ala153) was expressed with a polyhistidine tag at the C-terminus.

Source: Rat

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Bio Activity:

1. Measured by its binding ability in a functional ELISA.
2. Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells in the presense of 20ng/mL TNF α . The ED50 for this effect is 10-40 ng/mL.

Endotoxin:

< 1.0 EU per μ g protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 19

Molecular Mass:

The recombinant rat Il17f consists 145 amino acids and predicts a molecular mass of 16.4 kDa.

Formulation:

Lyophilized from sterile 20 mM Tris, 500 mM NaCl, 10 % glycerol, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

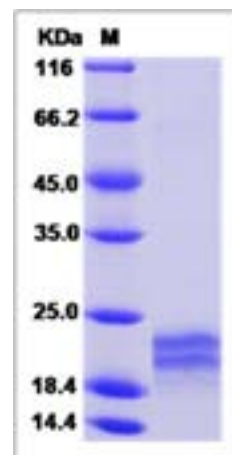
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-17F (IL-17F) is a cytokine that shares sequence similarity with IL17. The most notable role of IL-17 is its involvement in inducing and mediating proinflammatory responses. IL-17 is commonly associated with allergic responses. IL-17F is expressed by activated T cells, and was expressed only in activated CD4+ T cells and activated monocytes. IL-17F has been shown to stimulate the production of several other cytokines, including IL6 and IL8. This cytokine is also found to inhibit the angiogenesis of endothelial cells and induce endothelial cells to produce IL2, TGFB1/TGFB, and monocyte chemoattractant protein-1. Recombinant human IL-17F did not stimulate the proliferation of hematopoietic progenitors or the migration of mature leukocytes. However, it markedly inhibited the angiogenesis of human endothelial cells and induced endothelial cells to produce IL-2, TGF- β , and monocyte chemoattractant protein-1. IL-17F stimulates the production of other cytokines and granulocyte colony-stimulating factor, and can regulate cartilage matrix turnover. IL-17F stimulates PBMC and T-cell proliferation. It also function in inhibiting angiogenesis By similarity. IL-17F plays a role in the induction of neutrophilia in the lungs and in the exacerbation of antigen-induced pulmonary allergic inflammation.

References

- et al.* 1.Starnes T, *et al.* (2001) Cutting edge: IL-17F, a novel cytokine selectively expressed in activated T cells and monocytes, regulates angiogenesis and endothelial cell cytokine production. *J Immunol.* 167(8): 4137-40. 2.Hymowitz SG, *et al.* (2001) IL-17s adopt a cystine knot fold: structure and activity of a novel cytokine, IL-17F, and implications for receptor binding. *EMBO J.* 20(19): 5332-41. 3.McAllister F, *et al.* (2005) Role of IL-17A, IL-17F, and the IL-17 receptor in regulating growth-related oncogene- α and granulocyte colony-stimulating factor in bronchial epithelium: implications for airway inflammation in cystic fibrosis. *J Immunol.* 175(1): 404-12.

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